

DOCUMENT RESUME

ED 393 808

SP 036 547

AUTHOR Giebelhaus, Carmen R.; Cruz, Josue
TITLE Implementing the BIE Intervention Strategy with Early
Field Experience Student Teachers. Final Report.
PUB DATE 95
NOTE 10p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Cooperating Teachers; *Early Intervention;
Educational Technology; Elementary Education;
Feedback; *Field Experience Programs; Higher
Education; Preservice Teacher Education; Program
Effectiveness; Program Implementation; *Prompting;
Student Teachers; Teacher Competencies

IDENTIFIERS *One Way Communication

ABSTRACT

This study examines the effect and effectiveness of the "bug-in-the-ear" (BIE) intervention strategy used with early field placement teacher education students to see whether meaningful feedback early in training would significantly help with developing teaching competencies. The BIE strategy involves a one-way communication device to prompt or cue teacher education field placement students on specific teaching behaviors during the teaching process. This investigation used the BIE device with 25 elementary education field experience students and their cooperating teachers. The students received audio-cuing via the BIE device from either their cooperating teacher or their university supervisor at least once each week during a teaching episode. The target skills to be cued were eight discrete teacher clarity behaviors. Descriptive data were gathered from several sources including two previously utilized self-reporting instruments, audiotapes of pre- and post-conferences, reaction journals submitted by the field placement students, and video-taped lessons. The results confirmed that student teachers could attend to two different verbal stimuli simultaneously; cooperating teachers liked using the device; student teachers did respond to the cued behaviors; cues attended to various aspects of pedagogy, classroom management, and content; and BIE gave student teachers a sense of confidence. Limitations included the equipment itself, personal reluctance of some individuals, and the structure of the early field experiences. (Contains one figure and eight references.) (JB)

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Final Report
Implementing the BIE Intervention Strategy
with Early Field Experience Student Teachers

Carmen R. Giebelhaus, Ph.D.
Josue Cruz, Ph.D.
The Ohio State University
College of Education
Columbus, OH 43210

Spring, 1995

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Implementing the BIE Intervention Strategy with Early Field Experience Student Teachers

Introduction

With greater attention being drawn in the literature to the development of specific teaching competencies in prospective teachers, the supervision of early field placements has also received renewed interest. This is because it is commonly believed that such field placements provide prospective teachers with the opportunity to practice the skills with "real students" which they can only read about and/or participate via simulated experiences in college classrooms. Thus, the focused supervision by an experienced mentor who is able to provide the kind of constructive and helpful feedback necessary at this early stage of professional development is critical. The purpose of the study, therefore, was to examine the effect and effectiveness of the BIE (bug-in-the-ear) intervention strategy with early field placement teacher education students - that is, those students who are in the midst of their professional preparation program rather than at the end of it, as has previously been studied. The BIE strategy entails the use of a one-way communication device to prompt or cue teacher education field placement students on specific teaching behaviors during the teaching process. (Giebelhaus, 1993, 1994; Giebelhaus & Cruz, 1994, 1992) The intent is to provide meaningful feedback to prospective teachers about their teaching at the time when learning about teaching is most likely to occur . . . during the teaching process.

Methodology

The investigation employed the BIE device with twenty-five elementary education field experience students and their cooperating teachers during winter quarter, 1994. The study involved field placement sites located in three school districts representing urban and suburban areas and included four schools (one elementary and three middle schools). The field placement consisted of two consecutive full teaching days each week throughout the ten week quarter. The field placement students received audio-cuing or prompting via the BIE device from either their cooperating teacher or their university supervisor at least once each week during a teaching episode. The target skill to be cued were eight discrete teacher clarity behaviors (Figure 1) documented in the literature as observable and measurable (Hines, 1981; Hamilton, 1988; Metcalf, 1989) and found to be easily and readily cued (Giebelhaus, 1993). In addition, open-ended cues in the areas of classroom management and content were encouraged. Descriptive data was gathered from several sources, including two previously utilized self-reporting instruments (Giebelhaus, 1993) completed by the observer (cooperating teacher or university supervisor) documenting the effect and effectiveness of audio-cuing (Giebelhaus, 1993), audio-tapes of pre- and post-conferences, reaction journals submitted by the field placement students, and video-taped lessons.

Results

As frequently occurs when investigations are exploratory in nature - extending existing research - confirmation of many previous assumptions is made and additional

Figure 1

"BUG-IN-THE-EAR" DEVICE AUDIO-CUING AND OBSERVATION NOTATIONS	
<u>Teacher Skills</u>	<u>Audio-cue/notations</u>
1. Informs student of the lesson objectives in advance	"give objective"
2. Repeats things that are important	"repeat ____"
3. Writes important things on the board or chart	"use board"
4. Summarizes material presented to the class	"summarize"
5. Makes use of verbal, written or practical examples	"give example"
6. Works through examples on the board and demonstrates the procedure to be used	"demonstrate"
7. Repeats things students do not seem to understand	"rephrase"
8. Asks questions to check students' understanding	"ask questions"

limitations or problems emerge. This investigation was no exception. There was confirmation of the usefulness of the BIE in providing direct, immediate feedback to student teachers which focused later discussions during post-observation conferences. Cooperating teachers who were comfortable using the device, did use it on a regular basis and found it to "bring them into" the process focusing not only their observation but their conferences as well. Student teachers who were prompted on a specific skill area responded to the prompt, retained the information and, after discussing it, most frequently incorporated it into their personal teaching repertoire. For example, the one area where student teachers, cooperating teachers and supervisors alike found the BIE to be especially effective was the area of *questioning* to aid the development of classroom discussion and assessment of understanding. This area causes

considerable difficulty for most novice teachers and is frequently mentioned by mentor teachers as an area of weakness by student teachers. Using the BIE intervention strategy, mentors were able to prompt student teachers on specific questions to ask during the actual discussion period. The response of the children to those prompted questions relayed by the student teacher during discussion reinforced not only the importance of going beyond the knowledge and comprehension levels, but also demonstrated *how* to ask such higher level questions. Using the BIE to provide immediate encouragement and reinforcement of such skills appears to be a significant learning tool for developing professionals.

Areas cued included not only pedagogy, but frequently issues of classroom and behavior management, content (correcting a stated error, connecting with previously learned materials, etc.) and classroom procedures. In each case, supervisors and student teachers found that the BIE added focus not only to the observation but to the post-observation conference. It also provided for focus in *goal setting* by the student teacher.

Previously, it was found that some cooperating teachers and student teachers were *reluctant* to use the BIE. A number of excuses by the individual emerge: the ear piece is uncomfortable; I forgot to get it out today; there is too much noise in the room; I'd rather just interrupt [or be interrupted]; I don't like to interrupt; we were both involved in the lesson. Despite training to the contrary, it was hinted to by the cooperating teacher that the BIE intervention called for too much of a judgement call or evaluation on their part. Student teachers also indicated their fear of this strategy

being used as an evaluation tool. Generally university supervisors, who are the main evaluators of the student teachers progress do not see this as problematic.

Also, during early field placements, the time in the field is limited. Students are enrolled in classes on campus and spend only a fraction of their week at the field placement, in this case two school days. This *lack of day to day contact and continuity* with the supervisor-supervisee relationship appeared to place limitations on the frequency of use and therefore, its effectiveness. The building of a "trust relationship" between the cooperating teacher and the student teacher which appears to be an important aspect of using the BIE was interrupted each time the student returned to campus, thus taking longer to develop. Further, communication regarding what the supervisor should be cueing on during observation was also limited based on fewer observation episodes to recognize patterns of teacher behaviors and also time to discuss teaching and learning in the conference format. For some, these limitations became excuses for not implementing the strategy.

Three limitations to the use of the *Realistic* model of the BIE device also became more apparent during this investigation. First, because the device has only one channel, multiple use of it with close proximity is not possible. Both in "open space" classroom situations and in close neighboring classrooms, BIE sessions cannot proceed simultaneously without one or the other picking up cues or "noise" from the other. Also, more incidences of interfering static appeared during this study. Clear transmission using the *Realistic* BIE device appeared to be disrupted by certain lighting fixtures and in certain areas of some classrooms. Although students did adjust to these

idiosyncracies, it sometimes created difficulties in effective implementation. Finally, the size of the room and the acoustics can be limitations to the use of the BIE device. In one field placement, the building was extremely old and its classrooms very small with poor ceiling acoustics and bare hardwood flooring. The close confines of the room with 25-30 children along with the extremely poor acoustics made using the BIE nearly impossible due to excessive noise in the classroom itself.

Conclusions

The purpose of this exploratory study was to examine the effect and effectiveness of the BIE intervention strategy with early field placement teacher education students - that is, those students who are in the midst of their professional preparation program rather than at the end of it. It was intended to extend previous research using the BIE to inform investigators as to the issues and problems with implementation of the strategy during prospective teachers' special methods courses, prior to student teaching.

Although some basic assumptions were confirmed, various limitations also emerged. It was confirmed, for example, that student teachers during early field experiences could attend to two different verbal stimuli simultaneously, cooperating teachers liked using the device, student teachers did respond to the cued behaviors, cues attended to various aspects of pedagogy, classroom management and content, the BIE strategy focused observations and post-observation conferences, and gave student teachers a sense of confidence. Limitations which emerged included problems with the equipment itself, the personal reluctance of some individuals, and the structure

of early field experiences.

It is the limitations which seem particularly interesting to me and appear to warrant further study. First, upon investigation as to the causes of the static interference noted by several of the participants, it has been suggested that the channel used in the *Realistic* device is at too high a setting and, therefore, picks up other transmission noise, i.e. cellular phones, nearby radio stations, etc. A slightly more sophisticated device may be the solution to this and other equipment problems. With the rapid improvements in this area of technology, such equipment should be readily available. Second, it appears that better training not only in the appropriate use of the BIE strategy, but in the supervision process is also warranted. Perhaps a thorough training program would help to eliminate whatever "fears" are present by the cooperating teachers and student teachers regarding the role and use of the BIE strategy. Therefore, the development of such a training program is recommended utilizing case study discussions and simulated experiences. Finally, the interrupted structure of the field experience which is not conducive to establishing a "trust relationship" or the day to day monitoring of progress and development of skills needs to be examined to determine the most effective design. Each college or university which prepares teachers use unique field experience designs. Some use half-day every day designs, while others use combinations of half-days and full-days to satisfy the field experience requirement prior to full-day student teaching. However, each has one thing in common. . . all early field experiences are part-time with part of the students' week spent in campus-based classes. As a result, the most effective design

for field experiences should be determined where the positive impact of this early intervention strategy can be maximized.

It can be concluded, despite the limitations, that the BIE intervention strategy during early field experiences is effective in contributing to the professional development of prospective teachers.

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